A Recipe for Next Generation 9-1-1

Richard Taylor ● Executive Director ● North Carolina 911 Board

What is Next Generation...

"This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us."

--Western Union internal memo, 1876. (132 years ago)

"Everything that can be invented has been invented."

--Charles H. Duell, Commissioner, U.S. Office of Patents, 1899. (109 yrs ago)

What is Next Generation...

"The wireless music box has no imaginable commercial value.   Who would pay for a message sent to nobody in particular?"

--David Sarnoff's associates in response to his urgings for investment in the radio in the 1920s. (88 years ago)

What is Next Generation…

"I think there is a world market for maybe five computers."

--Thomas Watson, chairman of IBM, 1943 (65 years ago)

"Computers in the future may weigh no more than 1.5 tons."

--Popular Mechanics, forecasting the relentless march of science, 1949

(59 years ago)

What is Next Generation...

"I have traveled the length and breadth of this country and talked with the best people, and I can assure you that data processing is a fad that won't last out the year."

--The editor in charge of business books for Prentice Hall, 1957 (51 years ago)

What is Next Generation...

"But what ... is it good for?"

--Engineer at the Advanced Computing Systems Division of IBM,1968, commenting on the microchip. (40 years ago)
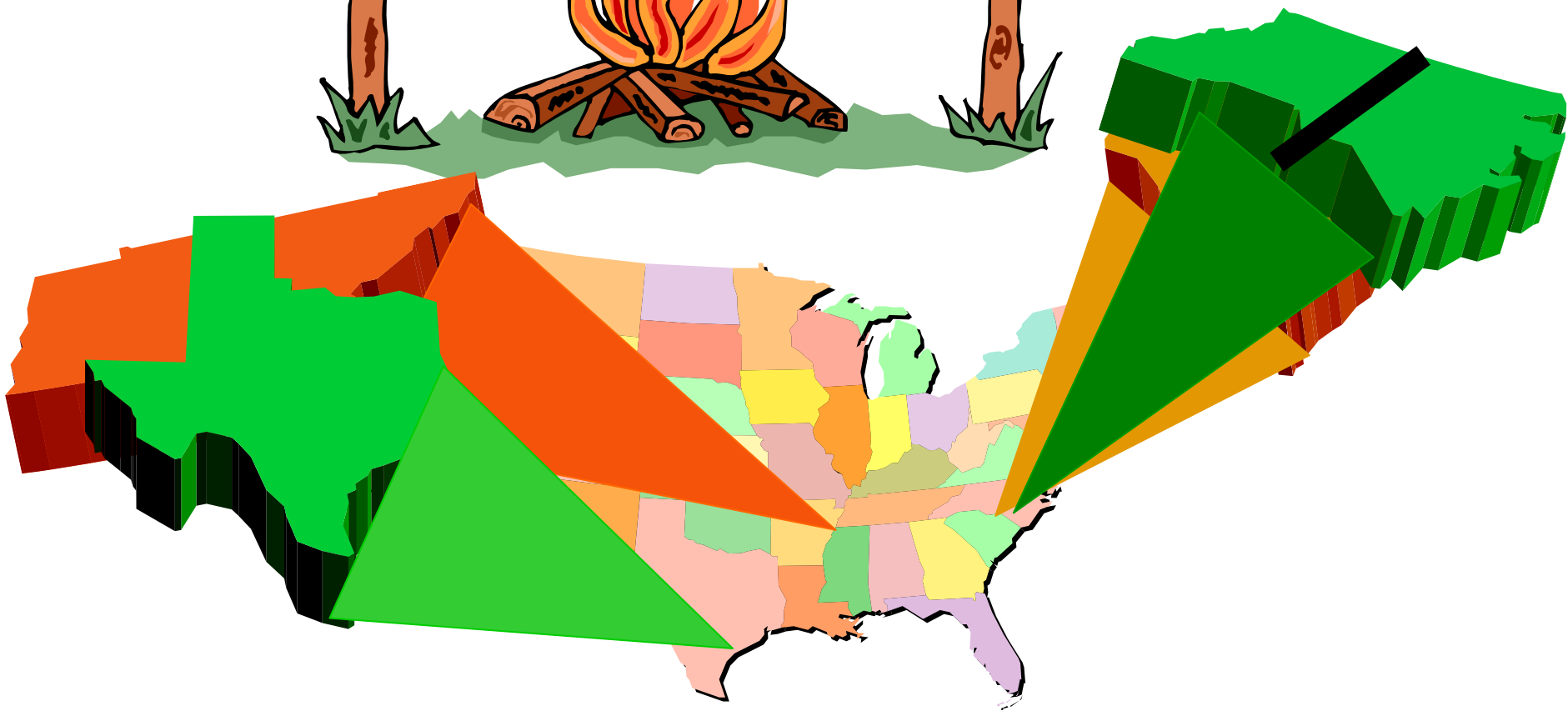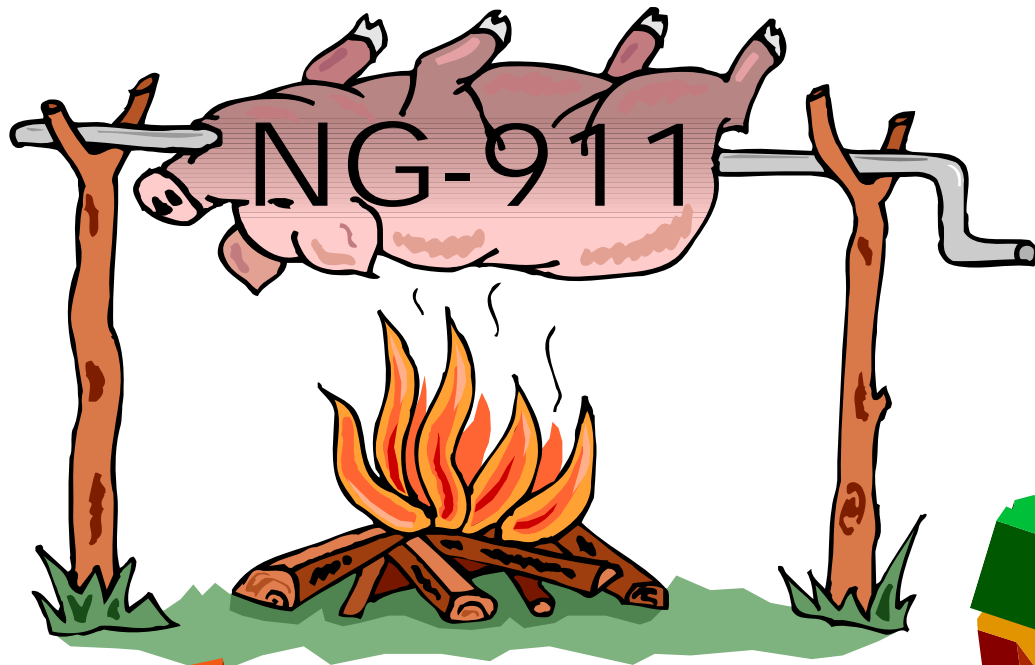
What is Next Generation...

"There is no reason anyone would want a computer in their home."

--Ken Olson, president, chairman and founder of Digital Equipment Corp., 1977 (31 years ago)

What is Next Generation...

"640K ought to be enough for anybody."

-- Bill Gates, 1981 (27 years ago)

OLD CHURCH RD

DUNCAN RD

LINE

#: (828) 268-9771   CS: RESD   Exch: BOONE   Pilot: 268
ne: TUTTLE, K   Loc: APT 204
dr: 165 ROBIN LN
ty: BOONE NC   ID: 08 09373
N:00180 PD East/West-Fire St 1-WEMS Base 1*Except East of 105 Ext*
te: 02/12/02 08:39   AAI: LEC:BELSO   SDN: 101
                          Automatic Detail Information

RK   ANI   Time   Status   SDN ALI   Address
01   -   9:45:30 Idle
02   -   10:39:43 Idle
03   -   11:20:37 Idle
04   -   9:30:10 Idle
05   -   11:54:30 Idle

DLE: 5 UNANSWERED: 0 ANSWERED: 0 ABANDONED: 0

Wireless

Enhanced 9-1-1

(910) 280-7275   09:55   11/21
        291   NORTHAM RD

ROCKINGHAM   NC 150 WPH2
VERIZON
E SECTOR   P# 280-7275

ALT# 910-995-2118   LEC:VZW
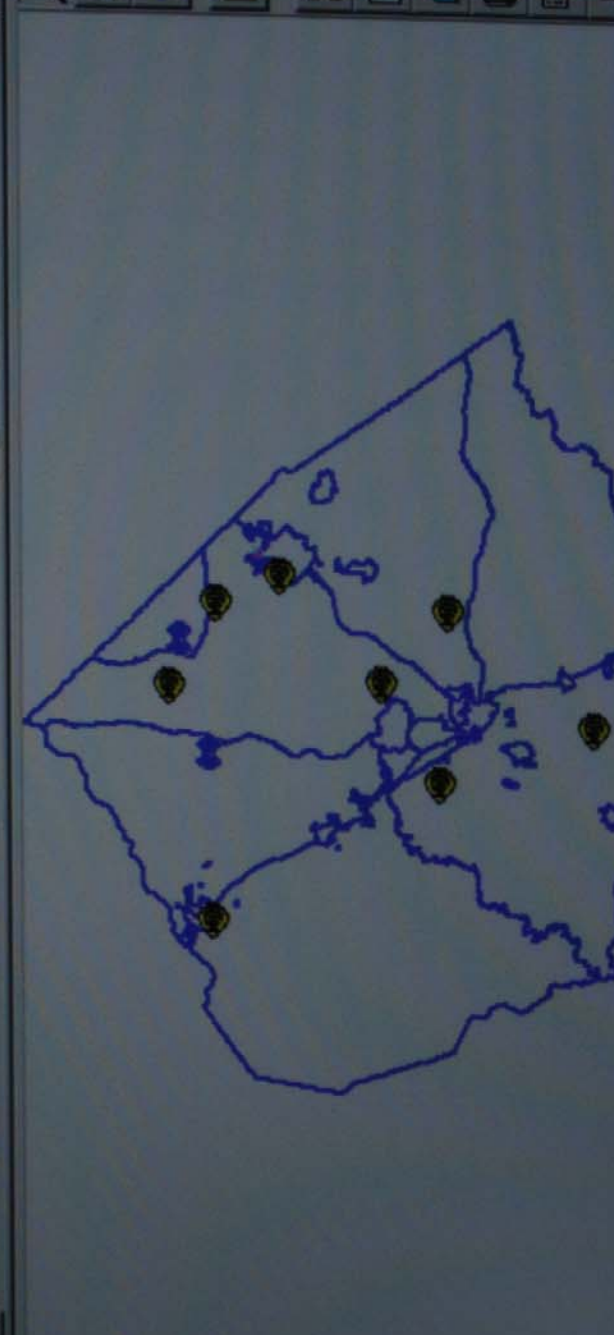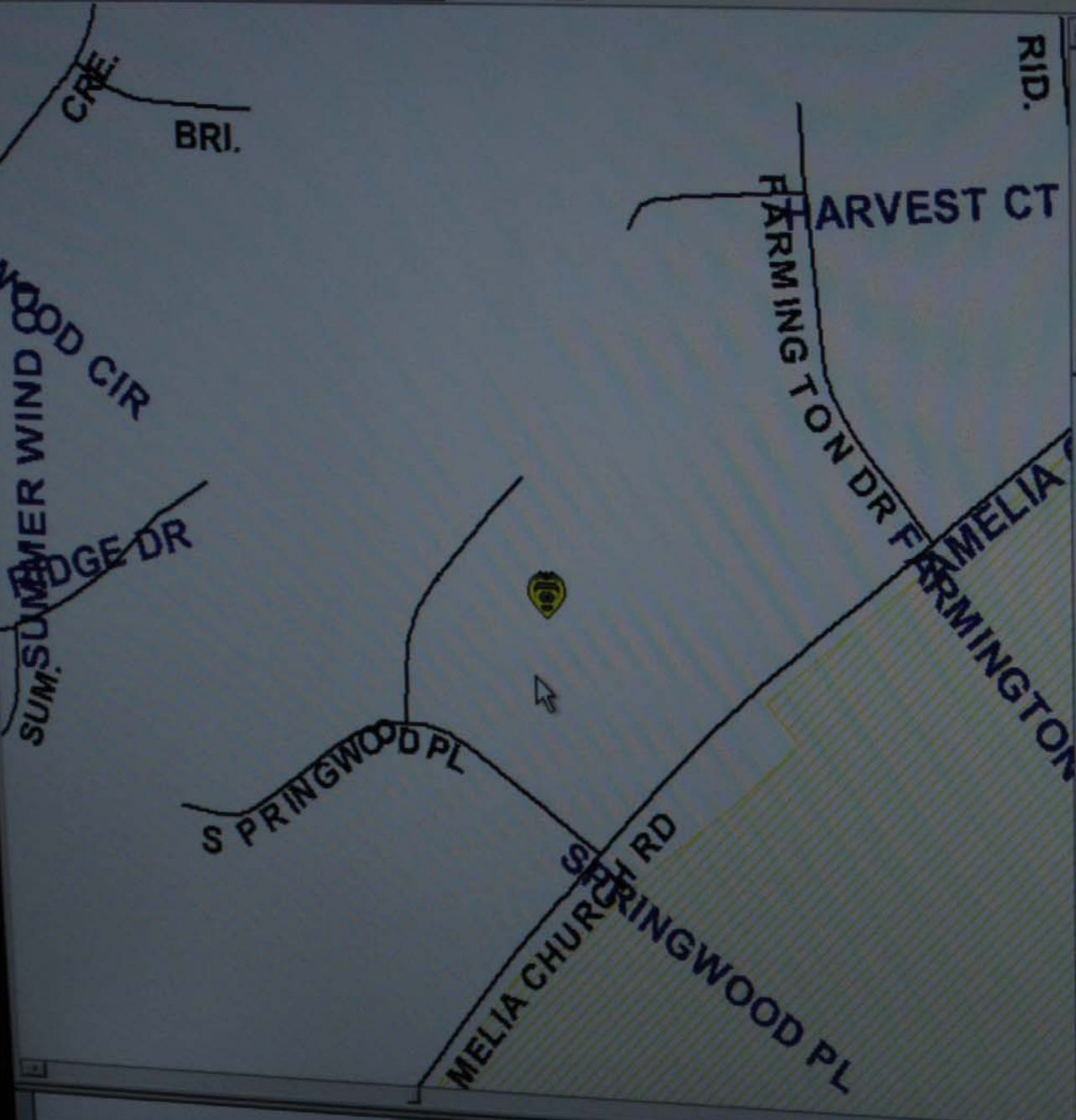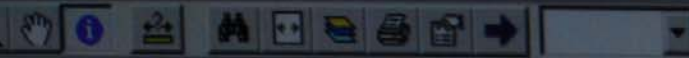
WIRELESS CALL

QUERY CALLER FOR LOCATION

QUERY CALLER FOR PHONE #
-079.772007 +34.935793
                       [07/21]

CRE.

BRI.

RID.

HARVEST CT

FARMINGTON DR FARMINGTON

AMELIA

SUMMER WIND WOOD CIR

SUM.

WOOD CIR

DGE DR

SPRINGWOOD PL

SPRINGWOOD RD

MELIA CHURCH

SPRINGWOOD PL

Datamaxx
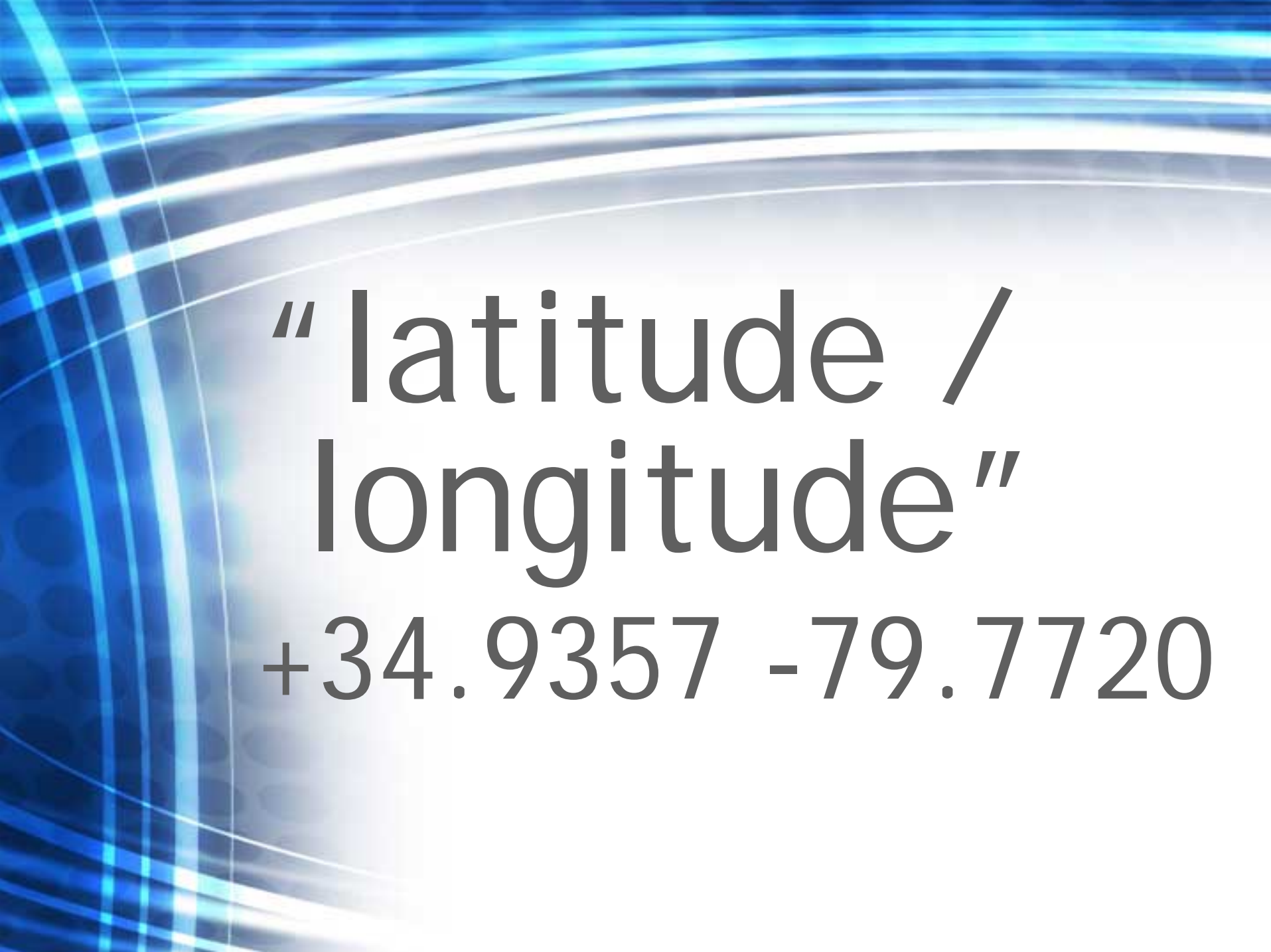
"rocky road by the old oak tree"

"POSTAL ADDRESS"
1920 MAIN ST

"latitude / longitude"
+34.9357 -79.7720

Wireless

Police

Wireless

Fire

VoIP

Wireless

Wireless

EMS

Wireline

Wireless

Sheriff

Wireless
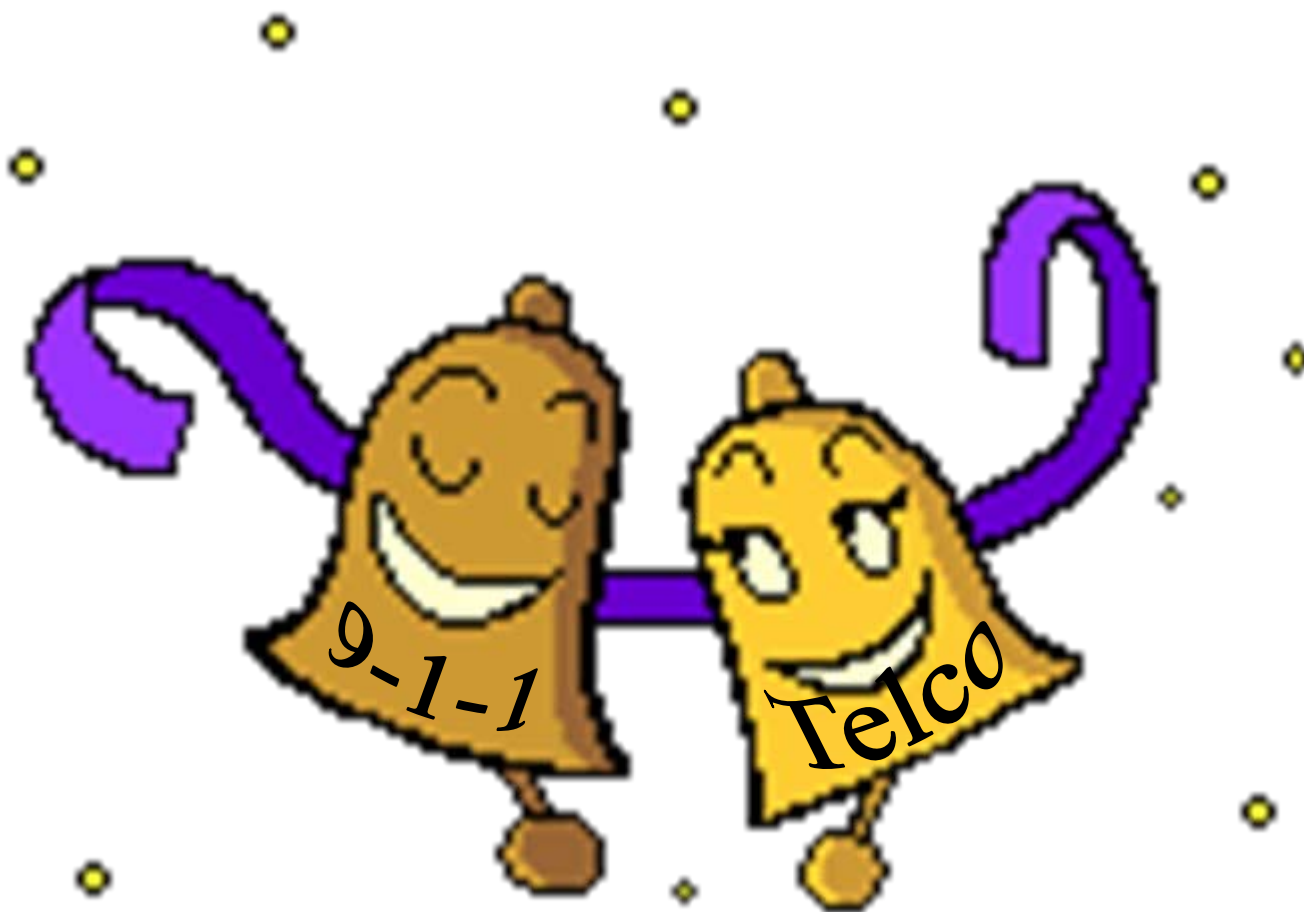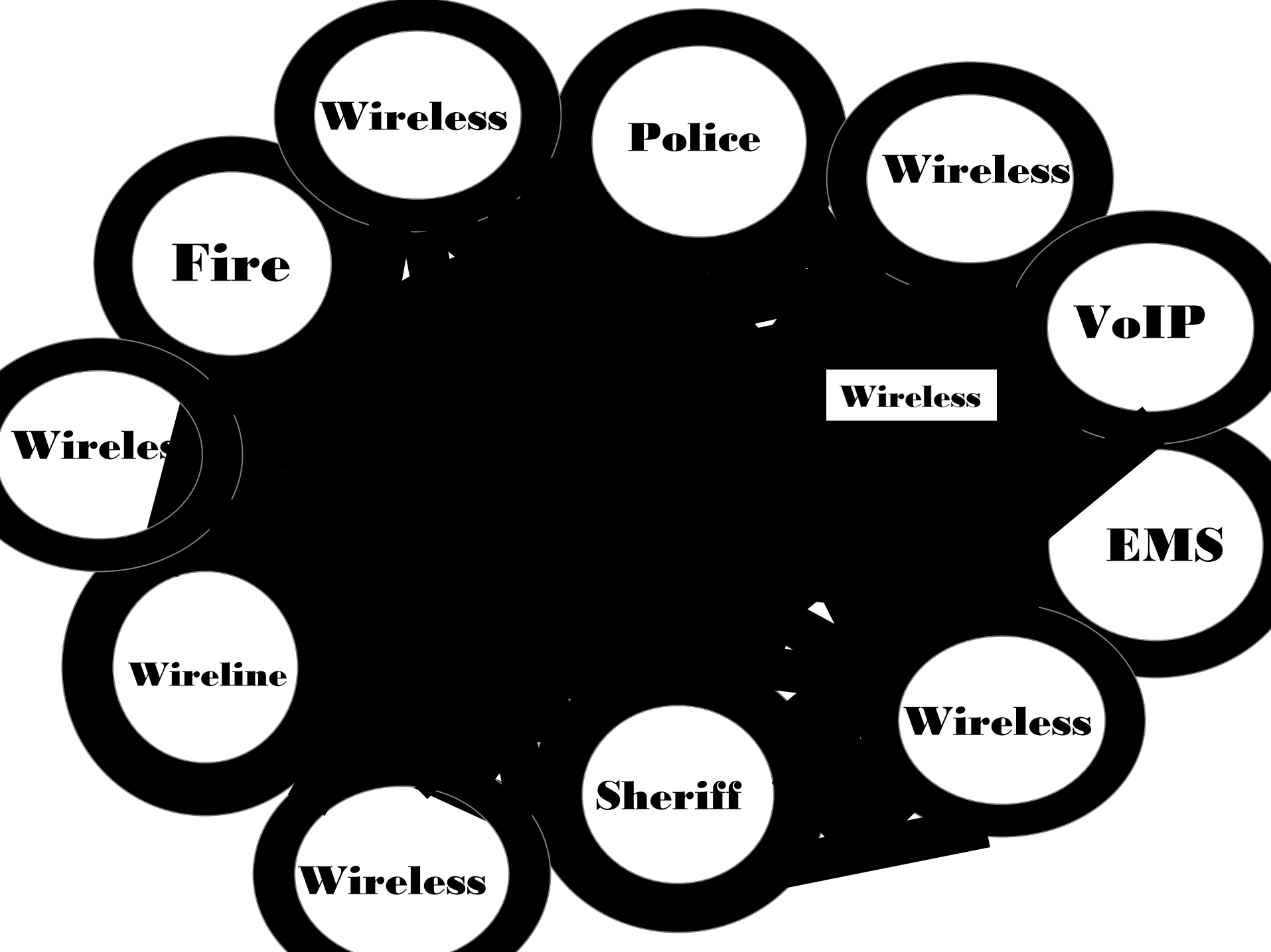
NG 9-1-1

OnStar Background

Combine and integrate directly into the vehicle's electrical architecture

–Cellular technology

–GPS location capability

–Sophisticated voice recognition technology

Call center-based services

–Safety, security and peace of mind

–Routing and point of interest

One button hands-free calling

Nearly 4.5 million subscriber

–Multiple languages /TTY

Standard 2008 - most GM vehicles

Draft

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
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3	V	E	R	I	F	Y			L	O	C	A	T	I	O	N																
4	O	N	S	T	A	R													C	A		1	0	1		V	O	I	P			
5	O	N	S	T	A	R			C	A	L	L			C	E	N	T	E	R								T	C	S		
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12																																
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14	L	A	T			0												L	O	N				0								
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Download This Bill in Microsoft Word format

~~Indicates Matter Stricken~~
Indicates New Matter

H. 3898

STATUS INFORMATION

General Bill
Sponsors: Reps. Haskins, Bannister, Cato, Hamilton and G.R. Smith
Document Path: l:\council\bills\nbd\11558ac07.doc

Introduced in the House on April 17, 2007
Currently residing in the House Committee on **Judiciary**

Summary: 911 Systems Requirements

HISTORY OF LEGISLATIVE ACTIONS

```
    Date      Body   Action Description with journal page number
-------------------------------------------------------------------------
  4/17/2007  House   Introduced and read first time HJ-14
  4/17/2007  House   Referred to Committee on Judiciary HJ-15
```

View the latest legislative information at the LPITS web site

VERSIONS OF THIS BILL

4/17/2007

(Text matches printed bills. Document has been reformatted to meet World Wide Web specifications.)

A BILL

TO AMEND SECTION 23-47-20, AS AMENDED, CODE OF LAWS OF SOUTH CAROLINA, 1976, RELATING TO 911 SYSTEM REQUIREMENTS, SO AS TO REQUIRE 911 SYSTEMS TO HAVE THE CAPACITY TO RECEIVE TEXT MESSAGING CONTACTS.

Be it enacted by the General Assembly of the State of South Carolina:

SECTION 1. Section 23-47-20(C) of the 1976 Code, as last amended by Act 317 of 2006, is further amended by adding an appropriately numbered item to read:

"( ) the capacity to receive a text messaging contact."

SECTION 2. This act takes effect six months after approval by the Governor.

----XX----

This web page was last updated on April 18, 2007 at 11:24 AM

View the latest legislative information at the LPITS web site

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This web page was last updated on April 18, 2007 at 11:24 AM

abc NEWS
VIDEO

SEARCH [   ]   GO

TEXT RESCUE

abc NEWS

⏸ ●━━━━━━○━━━━━ 0:02/2:13 🔊 NORMAL

Original URL: http://www.tgdaily.com/2007/01/18/cellphone_911_pictures/

New York to add photo-sending capabilities for 9-1-1 calls

By Mark Raby
Published Thursday 18th January 2007 15:36 GMT

New York (NY) - New York will soon be getting a new system that could be one of the biggest advancements in emergency call centers since the creation of 911 over 35 years ago. In his State of the City speech, mayor Michael Bloomberg said the city has plans to allow callers to send cell phone pictures and videos to local 911 dispatchers.

"we'll begin a revolutionary innovation in crime-fighting: Equipping 911 call centers to receive digital images and videos New Yorkers send from cell phones and computers, something no other city in the world is doing." said Bloomberg during his speech yesterday. Additionally, there will be a designated place to send photo and video files online at nyc.gov, he said.

Bloomberg did not reveal specific details, but city officials were quoted as saying that the existing technology was essentially already in place and it would cost the city next to nothing to officially implement the feature.

WebEOC® *Professional*

Version 6

Crisis Information Management Software provides real-time information to emergency responders

Following the events of September 11, 2001, the Department of Justice, National Institute of Justice (NIJ)/Office of Science and Technology (OS&T) conducted an evaluation of what is now known industry-wide as Crisis Information Management Software (CIMS). At the time there existed relatively few software firms providing CIMS – the software used in emergency operations centers (EOCs) to manage crisis information.

ESi was one of only ten software firms who subjected its software, WebEOC®, to DOJ's independent evaluation. Since that time, ESi has become the leading provider of CIMS software nationwide.

WebEOC first received industry-wide exposure in the July 1999 edition of the International Association of Emergency Managers (IAEM) Bulletin. In an article written by then IAEM Region IX President B.J. Sibley, WebEOC and the concept of a "virtual" EOC were given widespread recognition.

- Be affordable.
- Be user friendly
- Be easy to maintain by existing EMA Staff with access to vendor's technical support.
- Be easy to tailor to the conditions and policies of the agency
- Allow for remote access by authorized users located outside the LAN.
- Comply with the provisions and standards for Incident Command System (ICS).
- Comply with the provisions of the Emergency Support Functions (ESF).
- Integrate with other systems such as mapping, other CIMS, and telephonic alert notification systems.
- Integrate public health into emergency management.
- Operate within a variety of network configurations.

COMCARE
EMERGENCY RESPONSE ALLIANCE

American
Red Cross

Radio over IP, a Critical New Tool in Emergency Communications

=Accurate Maps

I know you're asking about liability issues, but I've always advised our 911 Districts to at least obtain a program like Microsoft Streets & Maps which costs less than $75.00. It allows you to enter lat/long and get a fairly accurate location for a caller. While the map certainly does not have every street and road in your jurisdiction, the pinpointed location should be close enough to displayed streets that a call taker could determine the caller's location.

We don't use commercial off the shelf products because those we have tested are drastically out dated, the street centerline data is so bad they plot info in the wrong PSAPs. Our program is $1,200 and is interfaced to the 9-1-1 positions to plot wireline, wireless and VoIP if we get x&y. I have seen so many people routed 180 degrees the wrong direction using these commercial products, it can cost someone their life. It is hard to save any lives when that happens. I can't understand why a PSAP would not spend a one time amount of $1,200, get a all data and all maintenance of the software forever.

=Accurate Maps

If you are receiving Phase II wireless calls, you need to have current, up-to-date, accurate street centerline data and a way to display the long / lat of a call on the map. *Saying you can not afford it is an acceptable, there are many ways you can obtain and maintain your GIS data.*

=Accurate Maps

The key is to **form partnerships and alliances** with others who use or need the data, folks like the tax appraisal office, the engineering department, water and wastewater, electric and gas utilities, building code enforcement, planning departments, police, fire, even private entities. Since this data would be beneficial to so many public and private agencies, one should always strive to form partnerships and data sharing alliances for collecting and updating the GIS information.
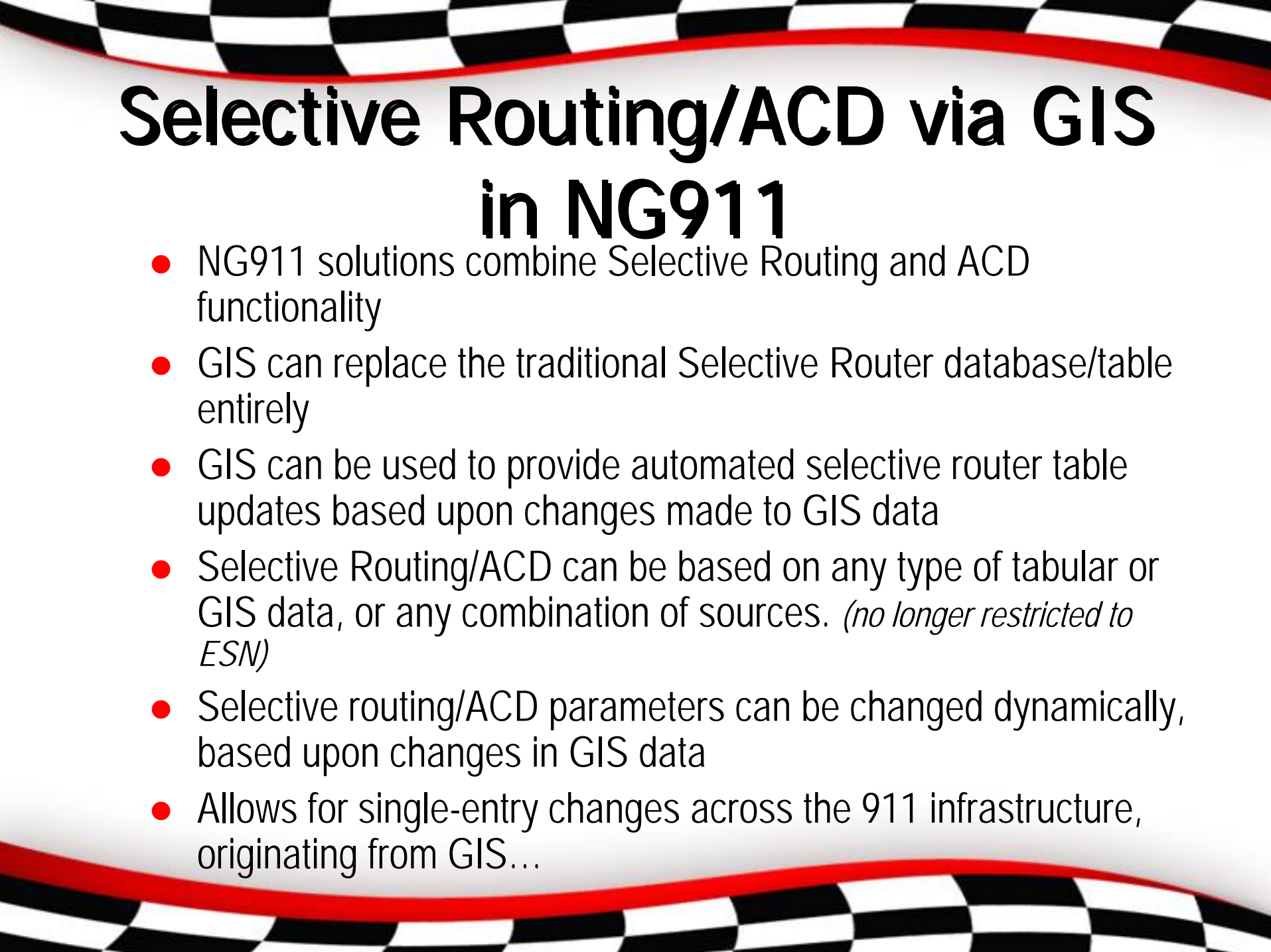
=Accurate Maps

The best way to approach the task is through <u>cooperation</u> and <u>coordination</u> with all interested agencies and parties. It is not enough to have the most accurate and up-to-data spatial data; it must be maintained and refined in our ever-changing world. It all _<u>starts with an accurate base map</u>_.

Selective Routing/ACD via GIS in NG911

- NG911 solutions combine Selective Routing and ACD functionality

- GIS can replace the traditional Selective Router database/table entirely

- GIS can be used to provide automated selective router table updates based upon changes made to GIS data

- Selective Routing/ACD can be based on any type of tabular or GIS data, or any combination of sources. *(no longer restricted to ESN)*

- Selective routing/ACD parameters can be changed dynamically, based upon changes in GIS data

- Allows for single-entry changes across the 911 infrastructure, originating from GIS…

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ALI Database via GIS

- NG911 solutions require that all of the various caller databases match the GIS database

- GIS-enabled ALI DBMS solutions offer synchronization / validation of TN databases against the GIS data layers (ESN's, roads, points, etc.)

- Progressive transition from wire line to alternate technologies, result in a growing number of calls that must be routed and located solely via GIS data.

- NG911 DBMS solutions allow for data management across the enterprise and throughout the data lifecycle

- Managing the ALI database with GIS, allows for single-entry edits system-wide…
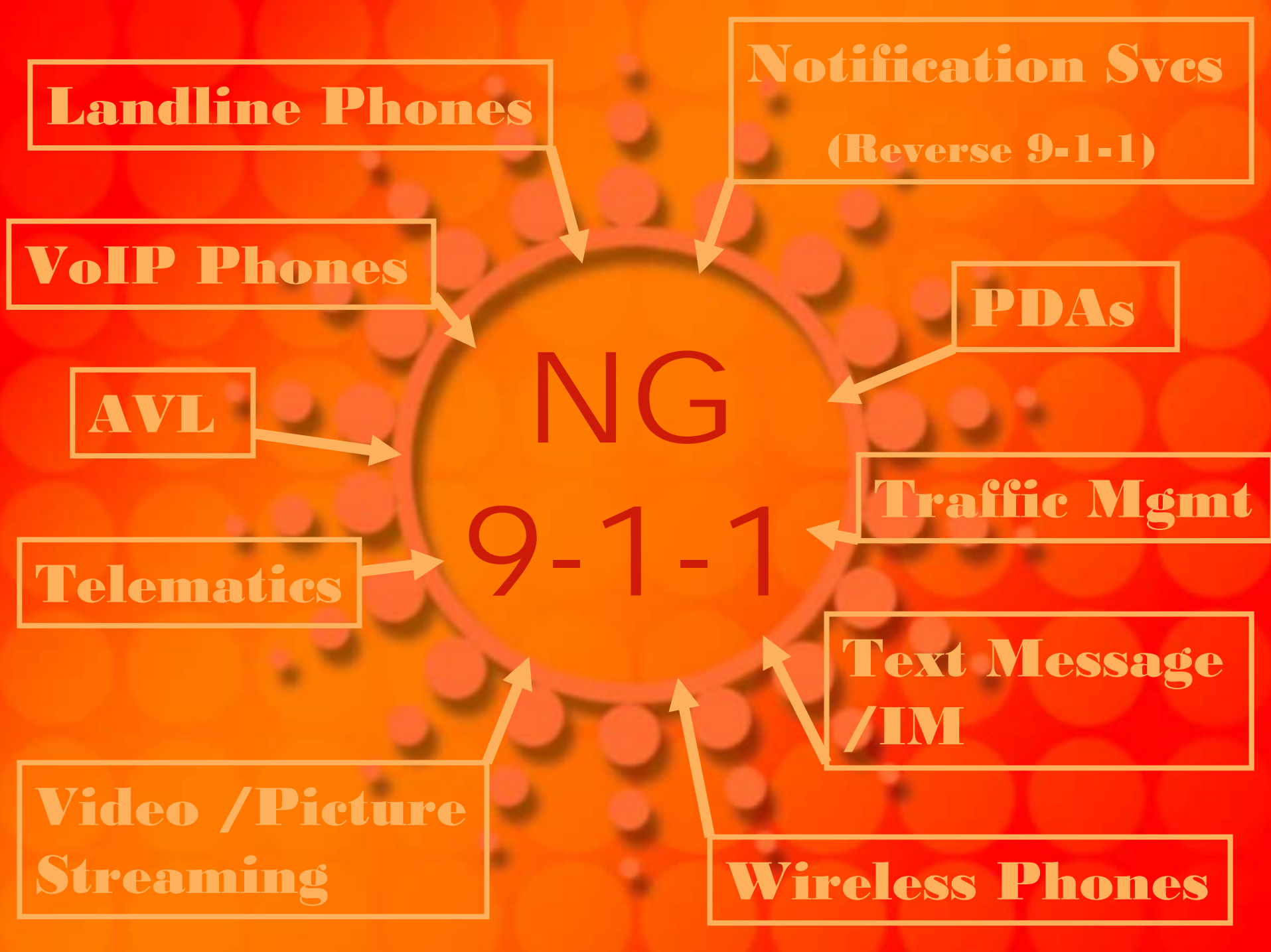
- Know What You Want It To "Taste" Like

SESSION LAW 2007-383
HOUSE BILL 1755

AN ACT TO MODERNIZE AND IMPROVE THE ADMINISTRATION OF THE STATE'S 911 SYSTEM THROUGH A STATEWIDE 911 BOARD, BY ENSURING THAT ALL VOICE SERVICES CONTRIBUTE TO THE 911 SYSTEM AND BY PROVIDING PARITY IN THE QUALITY OF SERVICE AND THE LEVEL OF 911 CHARGES ACROSS VOICE COMMUNICATIONS SERVICE PROVIDERS.

Whereas, maintaining an efficient Enhanced 911 system across the State benefits all citizens and not just certain localities; and

Whereas, the Wireless 911 Board has successfully administered the statewide wireless Enhanced 911 system for many years; and

Whereas, local governments have administered a similar wireline Enhanced 911 system for their local jurisdictions; and

Whereas, the average monthly 911 service charges paid to local governments by local exchange company customers exceeds the average monthly 911 service charges paid to the Wireless 911 Board by wireless company customers, thereby creating an unfair competitive advantage for wireless companies; and

Whereas, some VoIP-enabled providers do not currently support the Enhanced 911 system by collecting 911 service charges; and

Whereas, the consolidation of the State's Enhanced 911 system under a single
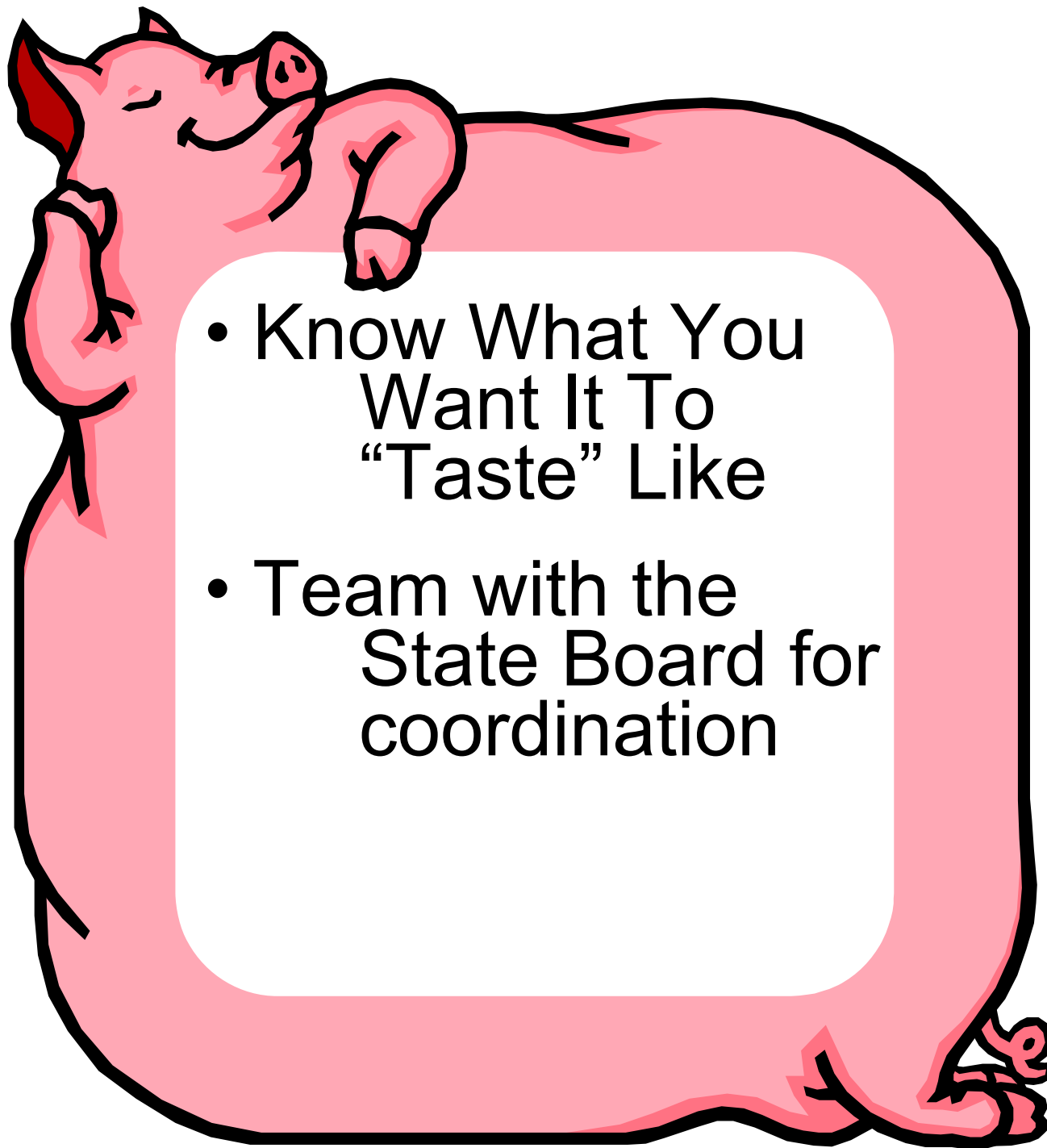
- Know What You Want It To "Taste" Like

- Team with the State Board for coordination

➢ **Single 911 Board with oversight on wireline/wireless**

➢ **Single 911 fee ($.70) for all devices**

➢ **Develop a statewide 911 plan**

Consumers ditching land-line phones

By Leslie Cauley, USA TODAY

Traditional land-line phones, once the bedrock of communications in the USA, are quickly going the way of eight-track tapes as consumers go wireless or choose Internet-based phone calling.

According to a report due to be released Wednesday by the National Center for Health Statistics, nearly one out of every six homes in the USA — 15.8% — had only wireless telephones during the second half of 2007, up from 6.1% during the same period in 2004.
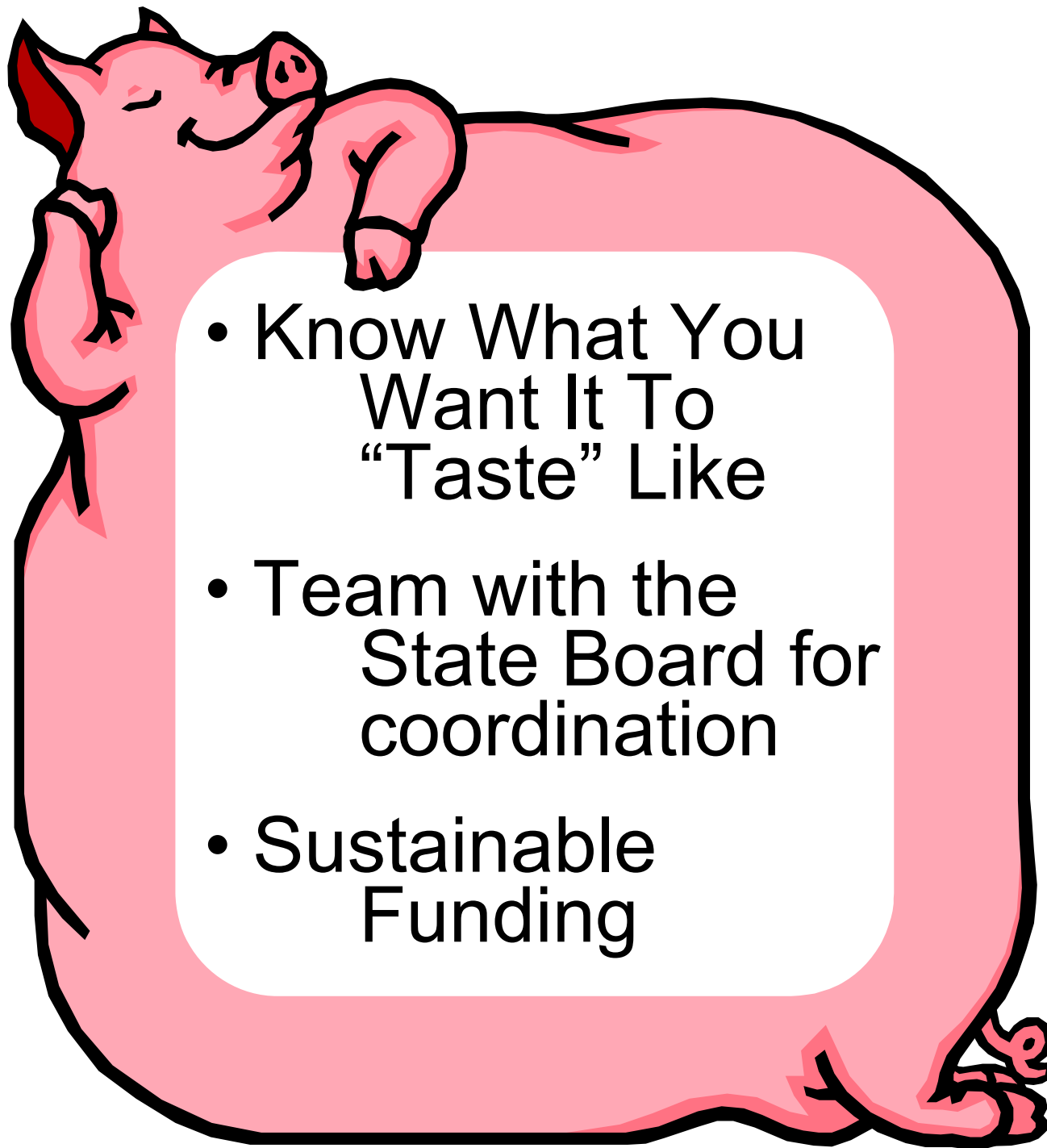
- Know What You Want It To "Taste" Like

- Team with the State Board for coordination

- Sustainable Funding

Form Partnerships and Alliances
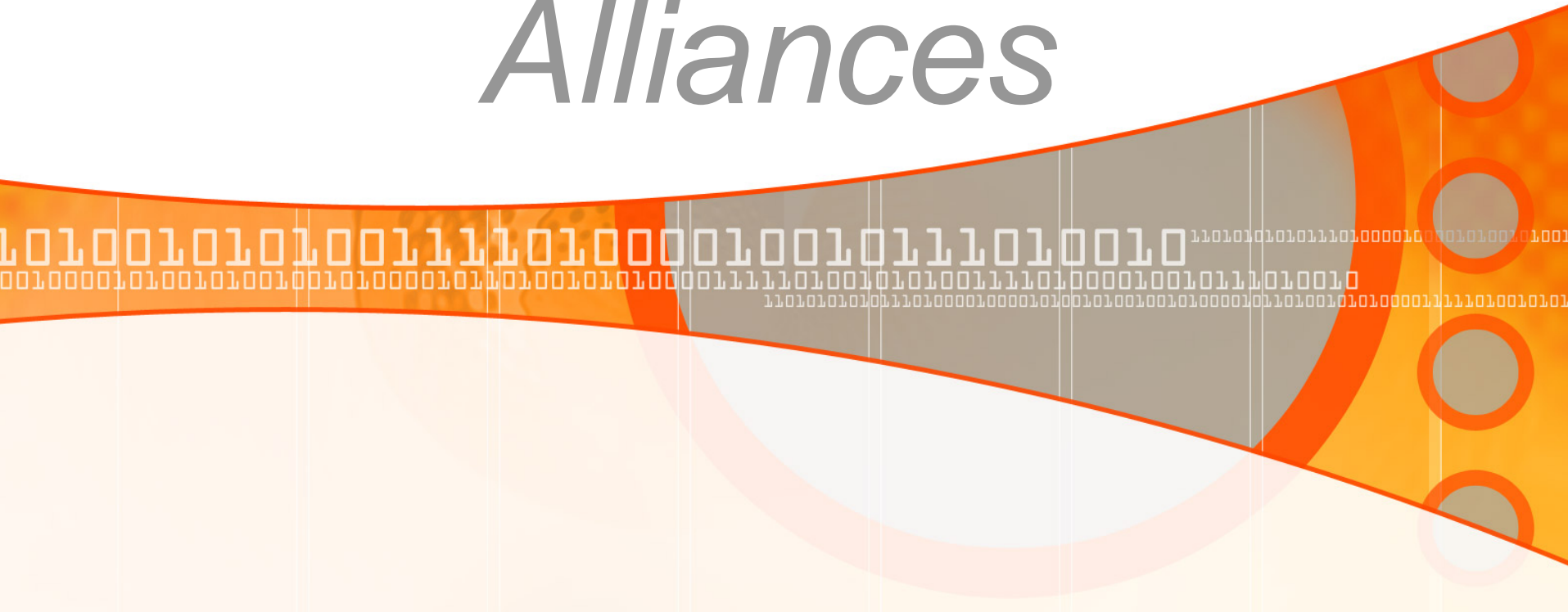
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